PATENT

CERTIFICATE OF MAILING

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date listed below.

Date: 02/24/2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Applicant(s) | : | Robinson, et al. |
|--------------|---|------------------|
| Serial No. | : | 10/608,926 |
| Filing Date | : | June 27, 2003 |

For Digital Frequency Synthesis

Art Unit 2631

not assigned Examiner NG(ST)6402 Attorney Docket

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

- Pursuant to 37 CFR §1.97 and §1.98, and in compliance with CFR §1.56, the Office's attention is 1. directed to the patents, pending applications, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed. Applicant(s) make no admission that the enclosed documents are prior art to the present invention.
- Regarding each listed document that is not in the English language, an English-language translation

| 2. | accompanies | this Statement as indicated on the attached PTO-1449 or a corresponding U.S. Patent r an English abstract, or a concise explanation of the relevance of the document is set ached sheet. |
|----|-------------|---|
| 3. | | Pursuant to 37 CFR §1.97(b) this Statement is being filed (one must be checked): (a) Within three months of the filing date or date of entry into the National Stage. (b) Before the mailing date of a first Office Action on the merits. |
| 4. | | Pursuant to the period set forth in 37 CFR §1.97(c) this Statement is being filed before the mailing date of either a final action or a notice of allowance or an action that otherwise closes prosecution in the application. The required certification and fee is indicated below. a) A certification is given below, b) Enclosed is a check covering the fee (\$180.00) set forth in §1.17(p) for consideration of this Statement, or c) Charge the fee set forth in 37 CFR §1.17(p) to Deposit Account No. 20-0090. |
| 5. | | Pursuant to the period set forth in 37 CFR §1.97(d) this Statement is being filed after the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. The required certification and fee is indicated below. a) Enclosed is a check |

| | b) | | Charge the fee set forth in 37 CFR §1.17(p) \$180, or Charge the fee set forth in 37 CFR §1.17(p) to Deposit Account No. 20-0090. |
|----|-------------------------|-------------|---|
| 6. | Cert (a) (b) | ification (| If applicable): The undersigned hereby certifies that each item of information contained in this Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement. The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the undersigned's knowledge after making reasonable inquiry no item of information contained in the Statement, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Statement. |
| 7. | | | authorized to charge any additional fees, fees underpaid, or credit any s Statement to Deposit Account No. 20-0090. |
| 8. | Concise Explanation (a) | (if neede | d): Below is a Concise Statement of Relevance of enclosed non- English language document(s). |
| | | <u>U.S</u> | . PATENT DOCUMENTS |
| | LLS Patent No. 5 | 859 605 is | sued 12 January 1999 to Raghayan, et al |

FOREIGN PATENT DOCUMENTS

WO 00/01072 dated 6 January 2000

OTHER DOCUMENTS

European Search Report completed 29 January 2004

U.S. Patent No. 6,075,474 issued 13 June 2003 to Gabet, et al.

DUFORT B et al: "Signal Generation using Periodic Single and Multi-Bit Sigma-Delta Modulated Streams" Proceedings of the International Test Conference. ITC '97. Washington, DC, Nov. 1-6, 1997, International Test Conference, New York, NY: IEEE, US, vol. CONF. 28, 1 November 1997 (1997-11-01), pages 396-405, XP000800336 ISBN: 0-7803-4210-0 *figure 6B*

Respectfully submitted,

Christopher P. Harris Reg. No.: 43,660

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.

526 Superior Avenue, Suite 1111 Cleveland, OH 44114-1400

Phone: (216) 621-2234 Fax: (216) 621-4072

Customer No.: 26,294

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
teduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

Substitute form 1449/PTO

Complete if Known Application Number 10/608,926 Filing Date June 27, 2003 First Named Inventor Ian Robinson Art Unit 2631 **Examiner Name** not assigned Attorney Docket Number NG(ST)6402

| | | | | | a |
|-----------------------|--------------------------|--|-----------------------------------|---|---|
| Sheet | Sheet 1 _of 2 | | Attorney Docket Number NG(ST)6402 | | |
| | | | | | |
| | | | | T DOCUMENTS | |
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ^{2 (f known)} | Publication Date MM-DD-YYYY | Name of Patentee of Applicant of Cited Docu | |
| | - | US- 5,859,605 | 01/12/1999 | Raghavan, et al. | |
| | | ^{US-} 6,075,474 | 06/13/2003 | Gabet, et al. | |
| | | US- | | | |
| | | US- | 1 | 1 | |

| | FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------|--------------------------|---|---------------------|--|---|----------------|--|
| Examiner Initials* | Cite No.1 | Foreign Patent Document | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages | | |
| | | Country Code ³ "Number ⁴ "Kind Code ⁵ (if known) | MM-DD-YYYY | | Or Relevant Figures Appear | T ⁶ | |
| | | WO 00/01072 | 01/06/2000 | Qualcomm Incorp | | | |
| | | | | | | | |
| | | | | | | <u> </u> | |
| | | | | | | <u> </u> | |
| <u> </u> | | | | | | <u> </u> | |
| | I | 1 | l l | | 1 | | |

| Examiner | Date | 1 |
|-----------|------------|---|
| Signature | Considered | |
| | Constants | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, whether or not classor is in conformance and not considered, whether or not classor is in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (04-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Panerwork Reduction Act of 1995, no persons are required

| Substitute for form 1449/PTO | | Complete if Known |
|--|------------------------|-------------------|
| | Application Number | 10/608,926 |
| INFORMATION DISCLOSURE | Filing Date | June 27, 2003 |
| STATEMENT BY APPLICANT | First Named Inventor | Ian Robinson |
| (Use as many sheets as necessary) | Art Unit | 2631 |
| (000 100 100 100 100 100 100 100 100 100 | Examiner Name | not assigned |
| Sheet 2 of 2 | Attorney Docket Number | NG(ST)6402 |

| Examiner Initials* | Cite No. ¹ | NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|-----------------------|--------------------------|---|----------------|
| | | European Search Report completed 29 January 2004 | |
| | | DUFORT B et al: "Signal Generation using Periodic Single and Multi-Bit Sigma-Delta Modulated Streams" Proceedings of the International Test Conference. ITC '97. Washington, DC. Nov. 1-6. 1997. International Test Conference, New York, NY: IEEE, US, vol. CONF. 28, 1 November 1997 (1997-11-01), pages 396-405, XP000800336 ISBN: 0-7803-4210-0 *figure 6B* | , |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | <u> </u> |
|-----------|------|------------|----------|
| Examiner | 1999 | Date | |
| Signature | | Considered | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.